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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,025	01/19/2001	William R. Voigt	1515.3001.001	7873

7590 07/14/2003
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EXAMINER

WALSH, BRIAN D

ART UNIT	PAPER NUMBER
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3722

DATE MAILED: 07/14/2003

PF

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	VOIGT ET AL.
Examiner	Art Unit Brian D. Walsh 3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on ____.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) ____ is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5) Claim(s) ____ is/are allowed.

6) Claim(s) ____ is/are rejected.

7) Claim(s) ____ is/are objected to.

8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. ____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). ____ .

2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ . 6) Other: ____ .

FINAL ACTION***Claim Rejections - 35 USC § 102***

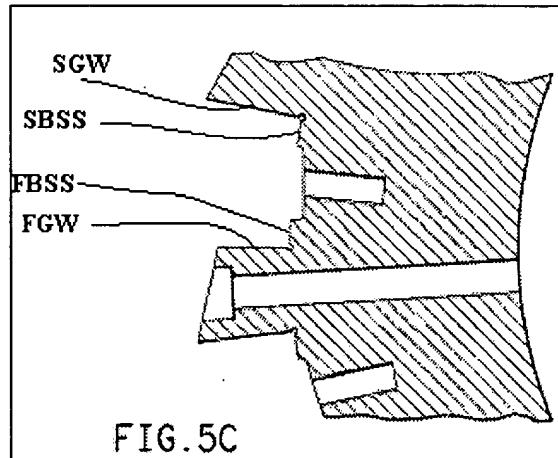
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 3 – 8 and 12 – 15 are finally rejected under 35 U.S.C. 102(e) as being anticipated by Samuels et al.

Regarding claims 1, 4 – 8 and 11 - 15, Samuels et al. discloses a polymer cutting apparatus of a helical nature (Col. 4, lines 24 – 26) comprising a rotor (7) having an outer surface, inherent left and right ends, a rotor axis (24) and inherent left and right end bearing supports concentric with the rotor axis. Samuels et al. further discloses a first groove wall (FGW, figure 5C by Examiner), in a first wall plane extending axially from the left end to the right end, extending outward away from the rotor axis and in the direction of rotation (see embodiment of figure 2), and wherein the first wall plane intersects the rotor axis. It is clear from figure 3 and 5A that the groove wall(s), if



helically disposed as Samuels et al. discloses (Col. 4, lines 24 – 26), would intersect the rotor

axis (24). Samuels et al. discloses a plurality of first base support surfaces (FBSS, again in figure 5C by Examiner) that are in a first base support plane that is perpendicular to the first wall plane and wherein all the base support planes that are perpendicular to the first groove wall intersect each other. Furthermore, Samuels et al. discloses a plurality of first rectangular flat cutter blades (2, used by Samuels et al. to represent first and second cutter blades), each of which has a left blade end, a right blade end, a cutting edge and a base that is parallel to the cutting edge and wherein the base of each of the plurality of the first rectangular cutter blades is seated on one of the plurality of first base support surfaces (see figures 1, 3 and 5C).

Samuels et al. further discloses a second groove wall (SGW, figure 5C by Examiner), in a second wall plane extending axially from the left end to the right end, extending outward away from the rotor axis and in the direction of rotation (see embodiment of figure 2), and wherein the second wall plane intersects the rotor axis. It is clear from figure 3 and 5A that the groove wall(s), if helically disposed as Samuels et al. discloses (Col. 4, lines 24 – 26), would intersect the rotor axis (24). Samuels et al. discloses a plurality of second base support surfaces (SBSS, again in figure 5C by Examiner) that are in a second base support plane that is perpendicular to the second wall plane and wherein all the base support planes that are perpendicular to the second groove wall intersect each other. Furthermore, Samuels et al. discloses a plurality of second rectangular flat cutter blades (2, used by Samuels et al. to represent first and second cutter blades), each of which has a left blade end, a right blade end, a cutting edge and a base that is parallel to the cutting edge and wherein the base of each of the plurality of the second rectangular cutter blades is seated on one of the plurality of first base support surfaces (see figures 1, 3 and 5C).

Samuels et al. further discloses at least one clamp member (6) clamping the plurality of first rectangular flat cutter blades to the first groove wall and the plurality of second rectangular cutter blades to the second groove wall.

Regarding claim 3, Samuels et al. discloses all of the elements as set forth in the above rejections including the disclosure of a first leading groove wall (FGW- figure 5C).

Regarding claim 11, Samuels et al. discloses all of the elements as set forth in the above rejections which inherently disclose the method steps disclosed in claim 11.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Samuels et al. in view of Meis.

Regarding claim 2, Samuels et al. discloses all of the elements as set forth in the above rejections, however, Samuels et al. fails to disclose the first groove wall as a trailing groove wall.

Meis discloses a cutting apparatus similar to the instant invention wherein the cutters (22) are held in a trailing first groove wall (15) (figure 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the cutter assembly of Samuels et al. to obtain a trailing first groove wall to either by a simple removal of parts (removal of the set of the first groove wall,

first cutter blade and first base supporting surface of Samuels et al. making the second set the first and only set) or to utilize the configuration of Meis wherein the first groove wall is a trailing groove wall since Meis discloses this configuration in order to provide a cutting apparatus enabling the knives (cutter blades) to be set more accurately and uniformly in the rotor body (Col. 1, lines 42 – 43).

3. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Samuels et al.

Regarding claim 9, Samuels et al. discloses all of the elements as set forth in the above rejections. However, Samuels et al. fails to disclose that the plurality of first and second base support surfaces includes exactly four first and second base support surfaces.

Claim 10 is substantially identical to claim 8, addressed above.

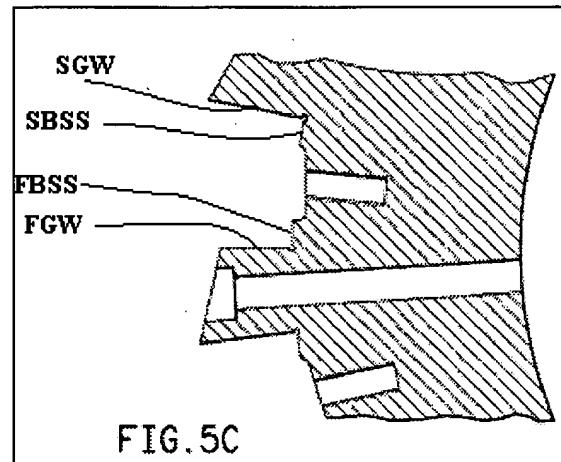
It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the number of support surfaces in the apparatus disclosed by Samuels et al. since it has been held that mere duplication of the essential working parts of a device involves only routing skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Furthermore, Applicant has provided no evidence that the use of exactly four first and second base support surfaces in the apparatus is critical to the workability of the device.

Response to Arguments

4. Applicant's arguments filed 6 June 2003 have been fully considered but they are not persuasive.

Applicant first argues that Samuel et al. fails to disclose a rotary cutter with a helix angle and with walls and planes arranged in the manner disclosed in claim 1. The Examiner has considered Applicant's arguments and found them not to be persuasive. Please refer to figure 5c previously provided by the Examiner. The elements of claims 1, 3 – 8 and 12 – 15 are clearly anticipated by Samuel et al. The first groove wall (FGW) is perpendicular to the first base support surface (FBSS). Every other element of claim 1 is disclosed by Samuel et al. including the clamping arrangement.

Regarding claim 2, the Examiner contests Applicant's arguments since Applicant has not addressed the elements for which Meis is relied upon. Meis is relied upon to teach a first groove wall in a rotary cutter as being a trailing groove wall. Applicant argues elements set forth in claim 1.



Regarding claim 3, Applicant argues that Samuels et al. shows the first base support surfaces that are perpendicular to the first wall plane are parallel to each other. The Examiner does not understand this argument for the following reasons: a) Samuel et al. does not teach the argued element anywhere in the disclosure, and b) claim 3 by Applicant states that the first groove wall is a leading groove and does not mention parallel planes.

Regarding claim 4, Applicant argues that Samuels et al. does not have a plurality of second base support planes that are perpendicular to the second wall plane and intersect each other. As is understood by Applicant's disclosure, the Examiner has determined that Samuels et

al. discloses exactly this limitation. Comparing figure 5c of Samuels et al. to the instant invention it is the determination of the Examiner that the inventions are substantially identical regarding the argued limitations.

Regarding claims 5 and 6, Applicant has set forth no specific arguments relating to the elements claimed.

Regarding claim 7, Applicant cites a lengthy argument regarding the blade support planes. However, regarding the blades supports and planes, claim 7 only claims a plurality of first and second rectangular flat cutter blades. The first cutter blades have a base that is parallel to the cutting edge and the base is seated on one of the plurality of first base support surfaces. Similarly, the second cutter blades have a base that is parallel to the cutting edge and the base of each is seated on one of the plurality of second base support surfaces. The groove walls and respective support bases of Samuels et al. are clearly perpendicular to one another as is disclosed in claim 7. The only limitation to the base of the cutter blades is that they are seated on a respective plurality of base support surfaces. Applicant's disclosure does mention that no two *adjacent* base planes are parallel, however, such is also the case in Samuels et al. Applicant's argument regarding wall planes spaced apart 180° on the cutter are moot since no such limitation occurs in the claims nor is support given for this argument in the specification.

Regarding claims 8 and 9, Applicant has set forth not specific arguments.

Regarding claim 10, again, elements that are not disclosed in the claims, (i.e. angle between a radius and a wall plane changing from one end of each wall surface to the other end) are considered moot by the Examiner. Claim 10, simply sets forth that the cutter has a plurality of grooves that are identical to, and spaced apart from, the at least one groove. Clearly Samuels

et al. discloses a plurality of grooves, each identical to the next and are spaced apart on the cutter.

Regarding claim 11, the Examiner maintains that Samuels et al. discloses a structure identical to the instant invention. The bases, surfaces, blades and helical nature of the tool are recited by Samuels et al. and discussed in the arguments above. Therefore, the method of making the cutter is inherently taught by Samuels et al.

Again, it is noted that the features upon which applicant relies (i.e., changing width at the outer cylindrical surface and the 'hourglass' effect) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, Applicant mentions nothing the claims regarding the placement of identical rotors end to end.

Regarding claims 12 – 14, Applicant argues the same structure set forth in the above rejections regarding the base support surfaces and groove walls and again claims that no two first wall planes are parallel to each other. The Examiner still relies upon Samuels et al. and closely inspects figures 5b and 5c. It is clear that adjacent grooves posses first wall planes that are not parallel to each other. The Examiner does not understand Applicant's arguments regarding the number of knives utilized nor the replacement of said knives since no such limitation is gleaned by claim 12.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Faxing of Responses to Office Actions

6. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to Office Actions directly into the Group at (703) 872-9302. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the examiner.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walsh whose telephone number is (703) 605-0638. The examiner can normally be reached on Monday - Friday 7:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (703) 308-2159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.


BDW
July 7, 2003


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TECHNOLOGY CENTER 3700